MILATARI

Milwaukee Area Atari Users Group

Calendar of MILATARI Events....

FEB. 21

MILATARI MEETING MOVES TO UW-M
CURTIN HALL RM 175   See Map Page 2
12 NOON ST SIG STARTS
12 NOON ACTION - C CLASS
1 PM BUSSINESS MEETING / DEMOS

FEB. 23

BOARD OF DIRECTORS MEETING 7PM
At The Ground Round   Hwy 100 & Bluemound.   All are Welcome!

CAUTION

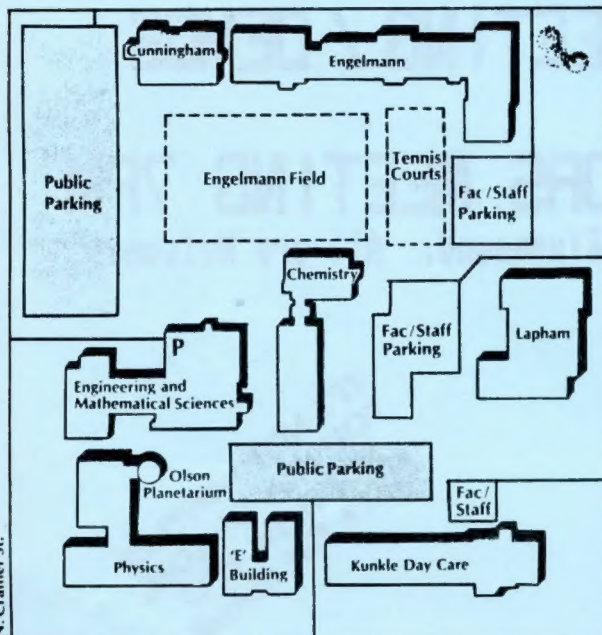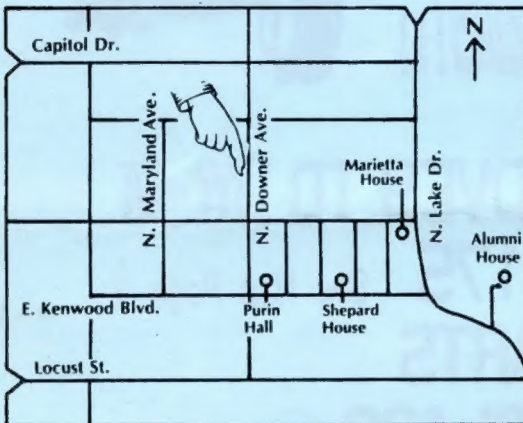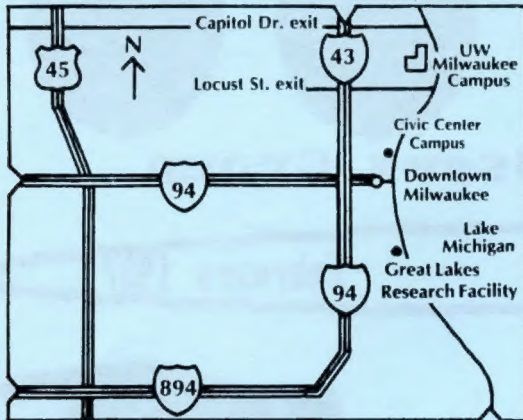BE SURE BRAIN IS ENGAGED BEFORE PUTTING MOUTH IN GEAR

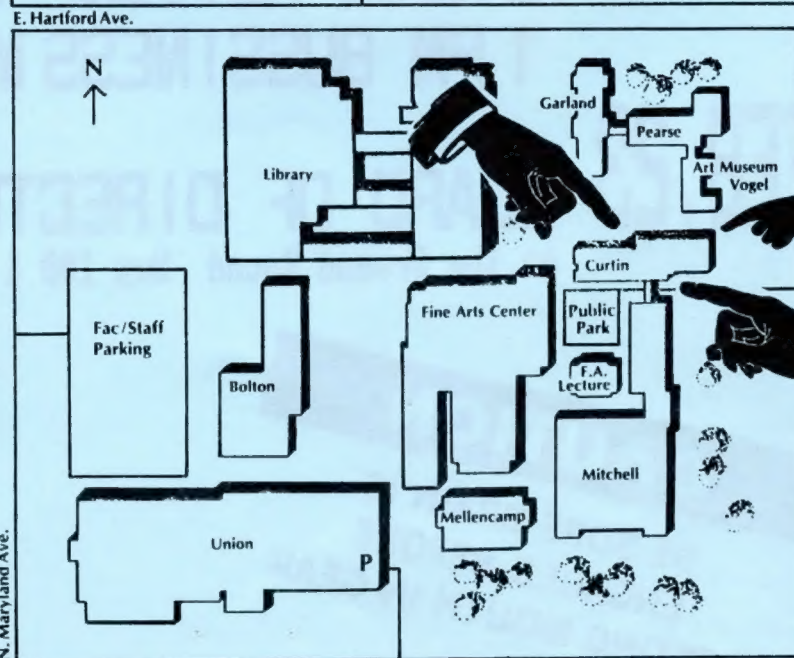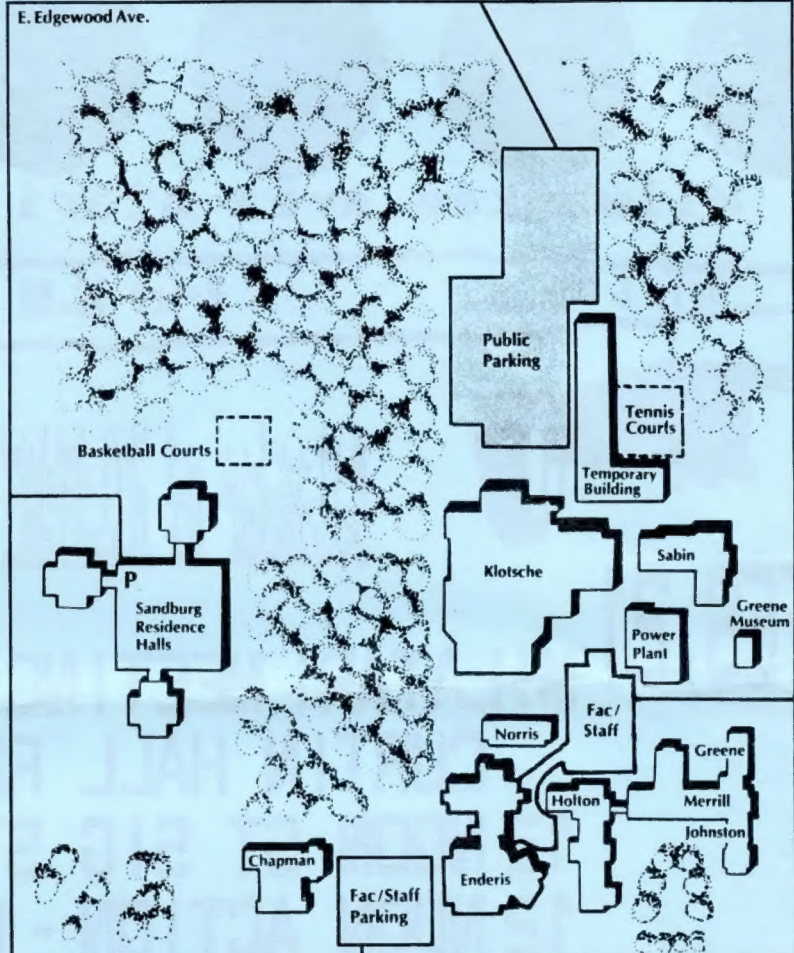IT'S NOT WHETHER YOU WIN OR LOSE, BUT HOW YOU PLACE THE BLAME

UW–Milwaukee

Getting to Campus by Car

- From the South: Take I-94 until it joins I-43, then take I-43 north to the Locust Street exit. Go east on Locust to Maryland Avenue, then north on Maryland to the campus.
- From the North: Take I-43 south to the Capitol Drive East exit. Go east on Capitol to Downer Avenue, then south on Downer to the campus.
- From the West: Take I-94 east to I-43. Go north on I-43 to the Locust Street exit. Go east on Locust to Maryland Avenue, then north on Maryland to the campus.
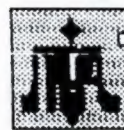
Curtin Hall Rm 175

E. Edgewood Ave.

Public Parking

Tennis Courts

Basketball Courts

Temporary Building

Klotsche

Sabin

Greene Museum

Sandburg Residence Halls

Power Plant

Norris

Fac/ Staff

Greene

Holton

Merrill

Johnston

Chapman

Enderis

Fac/Staff Parking

E. Hartford Ave.

Capitol Dr. exit

45 — 43

Locust St. exit

94

UW Milwaukee Campus

Civic Center Campus

Downtown Milwaukee

Lake Michigan

Great Lakes Research Facility

894

Capitol Dr.

N. Maryland Ave.

N. Downer Ave.

Marietta House

N. Lake Dr.

Alumni House

E. Kenwood Blvd.

Purin Hall

Shepard House

Locust St.

Cunningham

Engelmann

Tennis Courts

Public Parking

Engelmann Field

Fac/Staff Parking

Chemistry

Fac/Staff Parking

Lapham

P

Engineering and Mathematical Sciences

Olson Planetarium

Public Parking

Fac/ Staff

Physics

'E' Building

Kunkle Day Care

N. Cramer St.

E. Kenwood Blvd.

Library

Garland

Pearse

Art Museum Vogel

Curtin

Fac/Staff Parking

Fine Arts Center

Public Park

Bolton

F.A. Lecture

Mitchell

Union

Mellencamp

P

N. Maryland Ave.

N. Downer Ave.

The President's Report
by Ron Friedel

The February meeting is our first at the University of Wisconsin - Milwaukee campus so here are the details.

1. The time. The meetings will start earlier than normal. Our new meeting times will be from 12 noon till 3 PM.

2. The place. Curtin Hall on the UW-M campus, room 175 (also called the Simultaneous Interpretation Facility). Curtin Hall is on Downer Avenue between Kenwood and Hartford. It is about 8 stories of undecorated concrete. It looks like a grain elevator with windows. Room 175 is on the entry level and is located just to the east of the entrances.

3. The date. The third Saturday in February, like usual, which is on the 21st.

MILATARI is looking for some good people to volunteer to keep the the club running as it has in the past. We are looking for the following people:

1. A newsletter editor or assistant editors.

2. A membership person. This person maintains the membership database and generates mailing labels. Here is your chance to learn how to use a database. I'll even give free lessons on how to use a database.

3. Possible help with the 8-bit public domain disk library. We need to decide how many of the older disks we will continue to try to sell.

4. Someone to handle the 'kids corner'. This person will set up a computer for the kids to play games on during the meeting. We will try to find a small, spare room to use for this, as we have in the past. MILATARI will supply the 8-bit computer and joysticks.

The people that had been doing these functions need to be thanked. They are Roy Duvall (newsletter editor), Dennis. Bogie (membership chairman), Bill Lawrence (8-bit disk librarian - old disks), and Nancy Gaszak (kids corner). They all have been helping for a long time and now it is time that new people step forward. Please call me at 354-1717 to discuss any of these positions.

We again will be giving out door prizes at the meeting. As an added inducement, we will be giving a gift certificate worth $25 to use at the Computer Software Center on your choice of software. Lets' have a good turnout. Our disk librarians will again be selling 4 disks for the price of three. This special will be available for both the 8 and 16 bit public domain disks. See you on the 21st. Ron.

From Mile High Atari Magazine...

GENIE   Genie now is offering a free demo of their system to potential buyers. The free sample session can be tried by Setting your terminal program to half duplex and Vidtex mode. Then dial 1-800-638-8369. When connected, type HHH. At the US prompt enter 5JM1168,GENIE[return]. Make sure you don't forget the comma. Sign up is available online if you have a major credit card. The ATARI is well supported with over 300 downloads available, $5.00 per hour online rates at 300/1200 baud.

COMPUSERVE   Not to be outdone, CIS now has a free online demo. The number is 629-5563. Make sure you are in 300 baud full duplex, and vidtex or atascii modes. When online press Control 'C', when the user ID prompt appears type 77770,101 and return. When the Password prompt appears type FREE-DEMO and return. WELCOME TO COMPUSERVE! Due to continuing pressure from GENIE, CIS has also adapted a no-online-time charge attitude for you uploaders. Real nice of them .
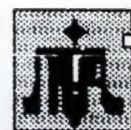
ANTIC'S ANTICS

by G. Hagopian

Well, once again the esteemed publication has made its nature known. Judge for yourself on the quality and dedication of the employees of this "Atari Resource".

As a general designer and as an employee of a major Point of Purchase house, a large part of my responsibility is the recommendation of new and better ways to achieve productivity and quality in our studio. Imagine my delight when, at Winter C.E.S., I discovered the new update to Tom Hudsons CAD 3D. We've been looking for a simple to use, visually orintated CAD system for a long while. Excited?? An understatement! You have to understand, my company has " Big Blue" as the primary and only system, and now I'd found something 10 times cheaper, and three times as good. And on an Atari. Terrific.

Well, almost terrific. I came home from the C.E.S. ready to write my report and recommendations. Get the Atari, get the Software from ANTIC and lets go do it. But I needed additional information on the capabilities and recommended hardware not available in the ANTIC Catalogue. What to do? Call your friendly person at ANTIC. You know, the guy who was listed as the one to call in all the press releases, Mr. Gary Yost.

After identifying myself and my company to the Receptionist, I was connected to Mr. Yost. Once again identifying myself and company, I explained that I was looking for additional information on the program. He informed me that he was very busy," in a meeting", and asked if I had a copy of the catalogue. I said yes, and that I had met him at C.E.S. and, once again said that I was looking for additional information. I then asked, since he was so busy, if I might have an address to write to Mr. Tom Hudson, author of the program. He informed me that Mr. Hudson was also a very busy man and that it would be impossible to even give me the address. He then told me to wait until the program was available at a local dealer and then see it. At that point we terminated the conversation.

Now the problem is this, I work with a reputable and successful company, one that deals with major companies all over the country and the world. Again, one of the responsiblities of my position is to recommend new and better ways of accomplishing the design of things we produce. I have always thought that it was the ultimate goal of the Publisher of any magazine/software company to have their product read and used by as many people as possible (free enterprise and all that). Maybe I was wrong. I was not asked for my name or phone number. I was not asked about the possibility of other areas of use. Just name, rank, and serial number. And when it was obvious I wasn't an advertiser, I was given a shoulder colder then the top of everest in the middle of winter.

Antic has made a great deal of noise about improving its customer/magazine relationship. If this is an example, their noise has a hollow ring to it

I have been a firm believer and user of Atari for many years. The uses of computer aided design in my field are just opening up. The recommendations that I make to my company and to my friends in the field, could promote a greater awareness of the versatility of the Atari ST 520 and 1040 as a majo design tool. But I must ask a question. Is it worth the effort to endure the cold and unresponsive

Attitude of a company that says it supports the development and use of Atari hardware and software?

I am a user, but I'm tired of being used. I will continue to support Atari with my dollars and my voice. But maybe it's time we took a hard look at a magazine that seems to have lost touch with the people who made it grow. Free enterprise is one thing, but an enterprise that takes advantage of the freedom of mass communication, and doesn't communicate with the individuals who read it, is another.

The guidelines at Atari are "Power without the price". At Antic the power seems to be an aloof and elitist attitude. And friends, that price is too high.

Tech Rips

Reprinted from Omaha ACE

Bill Wilkinson on "Tech Tips"

Well, as usual, ANTIC did it again. The "Tech Tips" in the back of the December issue is bad enough and stolen enough to make me put this up here.

First, although they credit "the sysop of the Atlantis BBS" for much of the stuff, a lot of it comes directly out of our book ("Inside Atari DOS", published by COMPUTE). Other pieces of the "tips" came from COMPUTE, ANALOG, the Atari DOS 2.0s manual, and (to be fair) ANTIC itself in earlier days. COME ON ANTIC! We don't mind seeing this stuff for the umpteenth time (after all, there are always new users who don't have 5 years of back issues), but don't go making out like this is brand-new, hot-off-the-press, exciting discoveries. Okay?

Second, whatever you do, please DON'T take their advice about "ERROR 164". They give a pair of POKEs which, supposedly, will allow you to load a file which has bad file numbers. The ONLY time you should use this is when you are reading (for example) old MyDOS disks (or others of that ilk) where the file numbers were purposely omitted. If your file is REALLY damaged and DOS tells you so via ERROR 164, you have about one chance in 1024 that the sector link is correct, so "LOAD"ing the file (as they recommend) is almost surely suicide. And "SAVE"ing the result can only be asking for trouble. - I would never attempt this process on anything but text files. Even then, I would strongly recommend getting a sector editor and learning how to use it. This patch to DOS method is a sure way to ruin.

Third, I can't figure out why anyone would want to put their disk directory out on the disk in a text file (virtually all commercial programs allow you to read the directory, and the code to read it from BASIC is essentially identical to the code to read a text file...only the OPEN mode number is changed). However, if you can somehow find a use for it, here is a MUCH shorter and easier method of doing so than ANTIC's version:
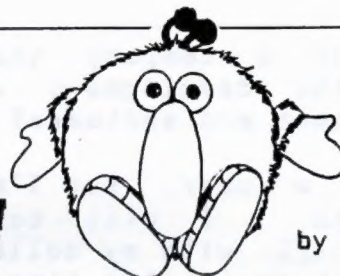
```
10 OPEN #1,8,0,"D:DISKDIR":REM  (or
any file name)
20 OPEN  #2,6,0,"D:*.*":REM  (or
*.BAS or whatever)
30 TRAP 50
40 GET #2,X:PUT #1,X:GOTO 40
50 END
```
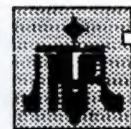
The Fuzzy Nolan Review

by Gary Nolan

WELL KNOCK ME OVER AND ROLL ME DOWN THE HILL

Big news out of Las Vegas and the Winter CES from "Daddy J" & Sons Inc. (formally known as Atari). Two new computers and one system package.

For me the most interesting was Atari's announcement that they would bring out a straight IBM clone. No, not an add-on for the ST's but a stand alone computer. The Atari PC will come in two configurations. The first at a list of only $499 (or close to it) will feature a 8088, Turbo motherboard (4.77 & 8 Mhz) with 512K RAM (expandable to 640) AND (this is the good part) AND 256K of screen RAM. That means that the 512K is there for the software to use. Using the 256K screen RAM the APC will emulate all the important graphics modes EGA, CGA, IBM mono and Hercules graphics cards.

The APC has SASCI, parallel, serial and mouse ports built-in (mouse is included). Also included is a 5 1/4 DDDS 360K drive and you can add two external drives, either 5 1/4 or 3 1/2. One drawback to the APC is the lack of internal expansion slots for any special boards or applications you may have. Atari has said that they will market an expansion box that will handle up to five AT size boards.

For the average person this is a take it out of the box and run type system allready configured for 80% or better applications. Most people will only add a printer, modem and a hard disk. All these controllers are built in, so IT's ready to go when you are.

Also included in the price of the APC is GEM Desktop and "other application software". I sure hope MS-DOS is part of that group.

For another $200 you can step up to system #2, which adds a tri-sync monochrome monitor. The res on this beauty is said to be 720 X 338. And if you want to part with some extra bucks you could get a color EGA tube for around $600 or so, which would give you a 640 X 350 picture.

There are conflicting reports about differences between the two systems. The first claims that the only difference is the monitor, and the other claims that the $499 unit will not have EGA graphics. All reports have the same prices so I'd vote for version #1. At only $200 apart the monitor would make that up.

Still other sources claim that Atari has told them that they intend to bring out a 286 based machine before years end and are also working on a 386 AT clone.

This shift towards IBM compatibility does not mean that Atari is going to give up on the ST's. And to prove that point "Daddy J" intro'd a restyled ST line-up. Using the component look, the new Mega ST's come in three flavors with one, two and three megabytes of RAM. Rumored price for the Mega1 is $995, but if you look at the package price below this unit looks more like a $11/1200 price job.

These new units share the same grey color as the older ST's and the detachable keyboard resembles a 1040. This new keyboard is reported to have a much "crisper" feel to it. The CPU module has a built-in DS 3 1/2 drive, a battery backed up clock/calander and it will have the new blitter chip installed. These new units also will use the new 1MEG DRAMS. The mouse and joystick ports are on the back of the keyboard, while the other ports are on the CPU unit.

The Mega ST's will also be used as the front end of Atari's new desktop publishing system. Using a Mega2 and a laser printer Atari intro'd an under $3000 system that should prove verrrry interesting. The 300 dot per inch laser printer will also be sold seperately for under $1500. Target dates for all these goodies are said to be 2nd quarter of this year.
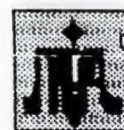
SAY JACK, WHAT'S THAT IN YOUR INSIDE POCKET?

Not too long ago (a month maybe) and not too far away (NY city I believe) "Daddy J" slipped the boys at Warner Communications (the name has a familiar ring) a check for $36 million, which takes him off the hook with WC. I can't picture "Daddy J" handing them the check a saying "D-D-D-Dat's all folks", though. A good chunk of that cash came from Atari's stock sale. That stock started at around $11 and is up to $17 1/2.

THE MORE THINGS CHANGE, THE MORE THEY LOOK THE SAME

With all the "new" things being announced, some of the golden oldies were also getting attention. Video games are making a comeback. Yea, VIDEO GAMES. You remember those little boxes you hooked up to the back of the TV set and watched those clunky shapes move around the screen. Well the principles the same but the graphics are a lot better. And not being one to pass up the oppertunity to make a buck "Daddy J" is bringing back the 2600. An old trick in new clothing it will sell for under $50.

The "new" 7800 unit will sell for less than $90. Claimed to have graphics that are better than the XE's it comes with a Pole Position cart and will accept the new "Supergame" cartridges.

In case you're wondering what's to become of the old 8-bit computers, this might give you a clue. Atari announced yet another game system at the CES. A new XE game unit was shown, but did not run, which could be turned into an introductory computer with the addition of a plug-in keyboard and a disk drive. This novel approach might be available in the 2nd quarter. Will wonders never cease?

Atari also announced its new $99, 1200 baud, Hayes compatible modem. The SX212 should be on dealers shelves real soon. Mention was made of the new 3 1/2" drive for the 8-bit computers but no prices, specs or dates were given on it.

Also announced at the CES were some price cuts for the current ST computers. The 520 mono system has a new list of $499 while the color unit is $699. The 1040 will list at $899 with a mono monitor and a color system is $1099. The 20Meg hard disk is now $699. Again these are list prices so actual selling prices could be less.

LOOK AT ME BUFFY, I'M ALL EXCITED!!!

Commodore made some announcements at CES also. To nobodys suprise they are finally going to start selling their IBM clones in the states. They've been selling them in Europe andCanada for the last couple of years. Their "low cost" version comes with one 360K drive, 512K RAM, a serial and parallel and will display IBM (CGA and mono), Hercules and Plantronics graphics modes. It's an 8088, 4.77Mhz machine that comes with MS-DOS 3.2 and GW Basic and has five full sized expansion slots. Priced at $999 it is to laugh. If you want to waste another $200 you can buy one of these boat anchors with Two drives AND 640K of RAM. I really don't know who they expect to by these rocks but Leading Edge must have ran into the nearest closet and had a giggiling fit when they heard this one. Commodere REALLY expects bussiness people to rushout and buy these things. Lets face it Commodore's name carries as much weight in that market as Atari's. ZIP!!!!

Those in the know claim that Commodore is getting ready to intro a new and wonderous product, timed for release about the same time as Atar's new goodies hit the floor. Nobody will say what it is, but it's great. Maybe a 4MEG Amiga? Or, how about a portable Amiga? Or, how about a portable IBM clone? NAAAAA. They'll probably come out with a portable 64 with 1MEG RAM and a 3 1/2" drive with a list of $900.

MORE
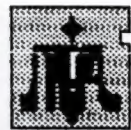
GENTLEMEN, MAN YOUR KEYBOARDS

PSST! WHICH ONE? COMPUTER? MUSICAL?

(MAYBE BOTH)

With the ST's having a built-in MIDI port they make excellent tools for the serious musician.

Hybrid Arts in conjunction with Nilford Labs has used this combination again to allow ST users to hook into the ADAP Soundrack. This $2000 analog to digital processor was designed to replace equipment costing up to $60,000. Needless to say it's for the SERIOUS or PROFESSIONAL musician. Unless you're one of those people who has to have to have everything for your system.

You best have at least one meg of RAM to use this beauty. Sound can be input from almost any source and is stored in the computer as digital information. This can then be viewed on the screen as a waveform and examined along either its X or Y axis, or both. You can even sample two sounds at once (stereo). Once you have the sample in memory you can edit, cut, paste, do mixing, looping and even modify the waveform. When you've had your way with the sample you can play it back at the touch of a key. Hybrid Arts claims the ADAP can sample at a rate of 44.1 Khz at 16 bit resolution, and that's as good as a compact disc player.

With one meg of RAM you can have an 80 sec. sample at 10 Khz or 20 sec. at 44.1 Khz. It's fully MIDI compatible, can do direct from compact disc digital to digital sampling, can store up to 64 multi samples in memory, will do real time digital effects processing (delay, echo, reverb) and is polyphonic.

All this and more for only $2000.

MARK MY WORDS

WordPerfect, one of the best wordprocessors around is coming to STville real soon.

The ST version will be a GEM based dandy with menu bars and windows and will be file compatible with Ver. 4.1 on the IBM. The program supports a 115,000 dictionary and thesuarus, a five level table of contents and index generator, auto calculation of numeric tables, keystroke macros and a virtual memory data system that transfers data from memory to disk when RAM is full.

Scheduled for release in the 2nd quarter of this year it should go for around $250. Not cheap, but this thing really flies.
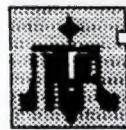
HI-HO, HI-HO IT'S OFF TO SCHOOL WE GO!

Yep, moving day has arrived for Milatari. This months meeting will be held at UWM. There should be a map showing how to get there elsewhere in the newsletter. Remember that the starting time is now NOON, not 2pm on Sat., Feb 21st. See you there.

MILATARI IS MOVING TO UWM.........
WILL WE SEE YOU THERE?   Curtin Hall Rm 175 12-4PM

The Radical Reviewer
By David Friedel

World Championship Karate
EPYX
P.O. Box 8020
Redwood City, CA 94089
48k Disk $34.95

Epyx has come out with a sure winner. The name is World Championship Karate,(WCK) and this is a game that surely lives up to it's name. This wonderfully designed game by Epyx deserves recognition. The graphics, animation, sound and playablity are found in few games. But the best thing about the game is the learnablity. Despite the 16 controls that have to be learned, we found out how to control the man in a matter of minutes.

The concept of this game is old, though. You must control a karate person through six or seven background screens of places around the world. (Henceforth the name World Championship Karate) In order to advance, you must deal with three computer controlled opponents per screen. Before you advance you can break bricks with your head, or dodge knives or spears. When you get to a new screen, you must defeat a more difficult controlled opponent. And so on, you continue your quest to become the best in the world.

The graphics are good, but if I had to compare the graphics between Broderbund's Karateka and WCK, I would have to choose Karateka. The sound is also a good point in the game. The breaking of bone sound, or the Eee-Yah before the great punch. This along with stars appearing above the losers head when he is on the ground, the winner shaking his hand in 'pain', or the man looking out at you, all provides a great and enjoyable game.

I highly recommend this game for anyone. It may look hard, but play it for a little while, and you may find yourself screaming at the computer, saying it made a terrible call. I will guarantee that you will enjoy this game to it's fullest. Now all Epyx has to do is make the World Championship Wrestling for the 8-bit. HHHmmmm, I wonder.....

Reprinted from the
Mile High Atari Magazine

W R I T E   E N A B L E   S W I T C H
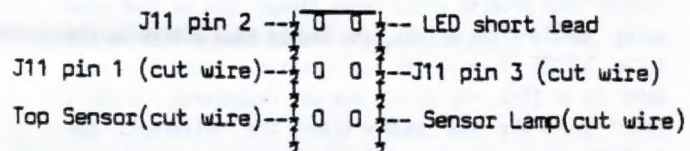for the Atari 1050 Disk Drive
By Tom Kerschen (Sparky)

This modification allows you to write on the back of a disk, or to write on any protected disk without notching the disk. The switch allows you to use the NORMAL operation of the disk drive, ALWAYS ALLOW writing to a disk, or NEVER ALLOW writing to a disk.

PARTS NEEDED (1) DPDT Switch with CENTER OFF (Radio Shack #275-620); (1) LED (Radio Shack #276-068); 6 feet of 24 gauge insulated copper wire.

TOOLS NEEDED Small Needle Nose pliers; Phillips screwdriver; Low wattage solder iron; Small drill 1/4 inch bit.

GETTING STARTED Remove the (6) screws from the bottom of the disk drive and take the top and front of the drive off. Now you need to decide where you would like to mount the switch. I have mine mounted in the front on the left hand side with the LED right above it. You will need to position the switch and drill a 1/4 inch hole. Now, position the LED and drill a 1/4 inch hole, be sure to watch and leave room for the switch. Solder a 16 inch piece of wire onto each of the 6 terminals of the switch. Wire in the switch and LED as per the following drawing

SWITCH BOTTOM

```
J11 pin 2 --| O  O |-- LED short lead

J11 pin 1 (cut wire)--| O  O |--J11 pin 3 (cut wire)

Top Sensor(cut wire)--| O  O |-- Sensor Lamp(cut wire)
```

To help make the drawing make sense, the J11 connector is located in the back left of the main board of the drive. It is the 4 wire plug closest to the front. They are numbered from 1 to 4 starting at the front of the disk drive. Cut the wire going to connector pin 1 and solder a wire coming from the middle terminal of the switch to connector J1. The other end of the wire you just cut solders onto the wire from the switch that's labeled (top sensor cut wire). The wire from the switch that is labeled (J11 pin 2) solders with the existing wire on the connector pin 2. Cut the wire going to connector pin 3 and solder the wire coming from the 2nd middle terminal of the switch to connector pin 3. The other end of the wire you cut solders to the wire coming from the switch labeled (sensor lamp cut wire). Solder a wire with the existing wire on connector pin 4 and hook it up to the long lead of your new LED. That completes all the wiring. Make certain that all the wires are properly connected and the connector J11 is hooked back up. Reassemble the case, watching so the new wires don't get pinched under the sides or between the screw stands. You no longer need to punch the notch into your disk to write to the back. With the switch down you are in the NORMAL position, With the switch in the middle position you are in the PROTECTED position, (that is you can not write to even a notched disk), and in the up position you are in the WRITE ALLOWED position. If you have questions or problems call the PALACE BBS (316)683-4605 and leave mail to the SYSOP or Sparky (CO-SYSOP) and I'll try to answer them for you. We also have mods to increase Atari computers up to 576K. Enjoy.

Reprinted from DAL-ACE

ST DS DRIVE SWAP

By John Pellet

Some of you may have noticed my recent report on my experiences swapping the single-sided drive in one of my 3.5" SF354 drives to a double-sided drive. For those of you with an interest, here is a detailed report of that operation.

FIRST, the *warnings and disclaimers*. While it would be difficult, you can ruin parts of your computer while doing this. And opening the case will certainly void your warranty. So consider carefully before you begin. Also, all of the instructions below pertain to the older drives with the small, square eject button. I have not seen inside the newer drives, with the large eject button, like in the 1040, so I can't vouch for any similarity. Finally, I did all of this and still encountered problems. Occasionally when booting with the new drive as drive B, I couldn't get the computer to recognize the second drive (double-clicking on B produced 'Insert disk B in drive A' message). This was an intermittent problem until Larry Dineen told me that when using double-sided drives, you had to have a disk in the drive BEFORE turning on the computer. Since I've made sure to do this, the glitch has not reappeared. I can't tell you why the double-sided are different, but evidently they are. Now on to the goodies!

The first thing you have to do is remove the old drive. This can be accomplished as follows. Remove the four screws near the corners on the bottom of the drive. This allows the top case to be removed. To do so, lift it first at the rear, after carefully freeing the connectors, then slide it forward, freeing the eject button. This will leave you with the bare drive, in its shield, attached to a small daughter board at the rear. Now you can remove the three screws that mount the drive to the bottom case, and remove the drive. Now you need to remove the metal shield from the drive. This is done by removing the two screws in the side of the drive, then sliding the shield off the rear of the drive. It may be necessary to loosen the shield by removing the tape strip on the bottom (This strip holds the shield together, so try to keep it in good shape if you remove it.). Now you should have a bare drive, connected via black ribbon connector, and white power connector to the daughter board. The last step is to CAREFULLY remove these two connectors. They just slide off but DON'T pull on the cables to remove them. They may be carefully separated with a small screwdriver, or similar tool. Ta Da! You're finished taking things apart.

There are a couple of pieces you need from the old drive,

namely the faceplate and the eject button. The button can be snapped out of the old eject lever by pushing either of the snaps free from the bottom. The faceplate is attached by two screws from the top down in the drive mechanism. They are easily removed with a magnetic screwdriver.

Now you need to get the double-sided drive ready to install. The faceplate and eject button should be CAREFULLY reinstalled on the new drive. Somewhere on the top board are two adjustments you must make for the drive to operate properly. First, you must set it to D0. There will be a small jumper assembly, probably near the black connector, with jumper points labeled D0, D1, and maybe D3, and D4. If you don't get the drive set to D0, the motor will spin but you won't be able to access the drive. The drive is probably set at the factory to either D0 or D1. A small but critical adjustment.

The second thing you must do is the only tricky part. The terminating resistor must be replaced with the one from the SF354. If you don't remove the supplied version, everything will work, and seem to be all right. However, if the original resistor pack is left in, computer problems may ensue. It appears the with the resistor pack installed, the drive draws too much current from the computer, causing intermittent crashes. At least those were the symptoms I encountered, which I eliminated when I removed the resistor pack. Without the original from the SF354, 2 drive systems will be fine, but you can't write to the new disk if its the only one in the system. Therefore, if you ever plan to use the new drive as the only one in a system, replacement is REQUIRED. The terminating resistor package is an inline multi-pin red resistor package, labeled RA1. It is probably located near the drive jumpers, between the black connector and the head, on the top board. On my factory single-sided drive, it is soldered in place and you have to desolder it carefully to use in the new drive. Then you can unplug the new one and replace it with the one from your SF354. Each has some gray writing on one side and should be replaced with the same orientation. The SF354 version has one fewer pins, but it seems to work fine.

With this completed you are ready to put it all back together. The first step is put the metal shield back on. It only goes one way which allows the screws to fit and access to the connectors. If your tape is somewhat worse for wear, you can tape over it with some package tape, like I had to do. Once you've screwed the shield down, plug the black and white connectors to their appropriate points. Now screw the drive back to the lower case. Now comes the only tricky part of the reassembly. Carefully fit the eject button in the upper case front, then turn
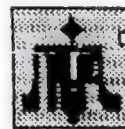
the whole thing upside down and snap the daughter board to the locating pegs it the upper case (these pegs locate the daughter board and receive the case mounting screws). The two case halves will then snap together and you can reinstall the four corner screws. Now you have a double-sided drive in your single-sided case.

Should you make the swap? It depends. I had a single-sided drive that was going bad, so I needed to do something. And I have filled up almost 10 data disks in the year I've had the machine. So the under $100 for the bare drive made a lot of sense to me. But I still had to fiddle with it for a couple of weeks to gather the above information.

MISCELLANEOUS

Here are the pin assignments and cable details to connect an ST to a Sony KX-14CP1 monitor. Reproduced from the October, '86 issue of Current Notes.

ST Pin	FUNCTION	21 pin SCART PLUG Pin #
1	Audio OUT	2 & 6
2	Composite video	Not connected
3	General output	Not connected
4	Mono. detect	Not connected
5	Audio IN	Not connected
6	Green Out	11
7	Red Out	15
8	Ground	4
9	Horiz. Sync.	20 (via 22 Kohm resistor)
		16 (via 350 ohm resistor)*
10	Blue Out	7
11	Monochrome OUT	Not connected
12	Vert. Sync.	20 (via 2.2 Kohm resist.)
13	Ground	21 (via screen, option.)

* A voltage is needed to select RGB mode on the SCART input. A 350 ohm resistor is used between ST pin 9 and monitor pin 16. You may need to replace it with a 500 ohm linear potentiometer if a black band appears at the top of the screen, or if a faint image is present.
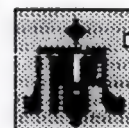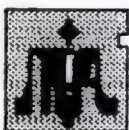
From Page 5

This relies on a little known feature" (a feature is a documented bug) of DOS 2 and most of its derivatives. If you OPEN a file for output BEFORE you open the directory, you can do this kind of copy. Neat feature: the new disk directory file will not appear in the text file list! (Maybe not so neat if you were counting on it being there. Oh well.) Enough. Just hate to see stuff readily available in most every reference work appearing as if it were news. I bet that between "MAPPING THE ATARI" and "Your Atari Computer", all but one or two of the "tips" in ANTIC are in already copyrighted material. Enough said?

Bill Wilkinson OSS and COMPUTE!

PROGRAMMING IS A SERIES OF DISCOVERIES LEADING YOU FROM ONE PLATEAU OF UNDERSTANDING TO ANOTHER ... THE TRICK IS NOT TO STEP IN THE STUFF BETWEEN THE PLATEAUS

Dr. Dobb's Journal, July 1986

In case you've just landed from Mars, or just plain haven't heard yet, TURBO BASIC is the exciting new Public Dom Basic Interpreter that we recieved from the Atari Users Group in Holland. It works on the XL or XE series of Atari Computers. It's almost too good to be true and should be a definate must for all XE or XL Atari owners.

Turbo BASIC, in addition to offering 42 more commands and 22 more functions than Atari BASIC, gives the user 1603 more bytes of program space by "hiding" 12.5K of itself under the XL/XE's operating system. It also runs 3 times faster than Atari BASIC, includes most DOS commands, has advanced graphics and programming functions, and is insensitive to lower case or inverse characters for most commands.

TURBO BASIC COMMANDS:

```
TurboBasic
```

Compiled & Translated by
Dave & Laura Yearke

Special Thanks to POKEY
Western N.Y. Area Users Group

Disk I/O

Name	Syntax	Description
BLOAD	BLOAD "D:name"	Binary loads file name (DOS option L with /N).
BRUN	BRUN "D:name"	Binary load and run file name (DOS option L).
DELETE	DELETE "D:name"	Deletes the file name (DOS option D).
DIR	DIR	Disk directory (DOS option A).
	DIR "Dn:*.*"	Directory of drive n, note that wildcard extenders may be used.
LOCK	LOCK "D:name"	Locks the file name (DOS option F).
RENAME	RENAME "D:old,new"	Renames the file name (DOS option E).
UNLOCK	UNLOCK "D:name"	Unlocks the file name (DOS option G).

Graphics

CIRCLE	CIRCLE x,y,r	Plots a circle with center at x,y and radius r.
	CIRCLE x,y,r,r2	R2 is an optional "vertical radius" for true circles or ellipses.
CLS	CLS	Clears the screen.
	CLS #6	Clear screen opened in channel 6.
FCOLOR	FCOLOR n	Determines fill color.
FILLTO	FILLTO x,y	A fill command analagous to the BASIC commands "POSITION x,y: XIO 18,#6,0,0,"S:"
PAINT	PAINT x,y	Another type of fill command, this one is a recursive routine that will fill any closed object as long as x,y are inside it.
TEXT	TEXT x,y,a$	bit-blocks text in a$ at x,y.

Memory

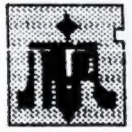|		
DPOKE	DPOKE m,v	Pokes location m,m+1 with 2-byte integer v (0 <= v <= 65535).
MOVE	MOVE m,m1,m2	Block transfer; moves m2 (number of bytes) from starting position m to new starting position m1.
-MOVE	-MOVE m,m1,m2	Same as MOVE but copies starting with the last byte of the block.
BPUT	BPUT #n,adr,len	Block Put; same as FOR I=0 TO len-1:PUT #n,PEEK (adr+I):NEXT I
BGET	BGET #n,adr,len	Block Get; same as FOR I=0 TO len-1:GET #N,A: POKE adr+I):NEXT I

Structured Programming

REPEAT	REPEAT	Start a REPEAT-UNTIL loop.
UNTIL	UNTIL <c>	Terminate when condition <c> met.
WHILE	WHILE <c>	Start a WHILE-WEND loop to end when condition <c> met.
WEND	WEND	Terminate a WHILE-END loop.
ELSE	ELSE	Optional extension for IF. The IF condition must not be followed by a "THEN", but terminated by end-of-line or colon.
ENDIF	ENDIF	Ends an IF-ELSE-ENDIF condition.
DO	DO	Starts an "infinite" DO loop.
LOOP	LOOP	Cycle back to the start of a DO loop.
EXIT	EXIT	Exit a DO-LOOP loop.

General Programming

PAUSE	PAUSE n	Pause processing for n/50 seconds.
RENUM	RENUM n,i,j	Renumber the program starting at line n, first number is *i*, increment is *j*. This function

will handle GOTOs, TRAPs, and all other line references except those which involve variables or computed values.

DEL	DEL n,i	Delete lines n-i.
DUMP	DUMP	Display all variables and values. For numeric arrays, the numbers are the DIMed values

plus one. For strings, the first number is the current LENgth of it and the second number is the DIMed size of it. DUMP also lists procedure names and labels with their line values.

	DUMP name	DUMP to device name.
TRACE	TRACE	Trace program during execution.
	TRACE -	Turns trace mode off (Default).
DSOUND	DSOUND n,f,d,v	Form of SOUND which activates channel-pairing for increased frequency range.
	DSOUND	Turns off all sounds.
GO TO	GO TO n	Alternate form of GOTO.
*L	*L	Turn line-indent on (Default).
	*L -	Turns line-indent off.
*F	*F	Special mode for FOR..NEXT loops, meaning still unclear but it affects reverse loops

somehow.

	*F -	Turns off the special FOR..NEXT mode.
*B	*B	Command which somehow affects the BREAK key, but we haven't figured it out yet.
	*B -	Turns off the special BREAK key mode.
--	--	Special form of REM which puts 30 dashes in a program listing.

Line Labels

#	# name	Assigns the current line number to the label variable name. This is a convenient way to

get around the problem of renumbering when using variables as line numbers. As far as I can tell, a label does not use one of the 128 allocated variable names, but is instead stored in a separate area which can hold up to 128 labels.

GO#	GO# name	Analagous to the GOTO command.
PROC	PROC name	Start definition of procedure.
ENDPROC	ENDPROC	End definition of procedure.
EXEC	EXEC name	Execute procedure name.

Modifications

CLOSE	CLOSE	Close channels 1-7.
DIM	DIM a(n)	Will automatically assign a value of zero to all elements of the numeric array being

dimensioned, and null characters to all elements of a string (The LEN is still variable, however, and initially zero).

GET	GET name	Wait for a key press, assign the value to name. Same as "OPEN #7,4,0,"K:":GET

#7,name:CLOSE #7".

INPUT	INPUT "text";a,b...	Prints text as a prompt before asking for variable(s), same as Microsoft-BASIC.
LIST	LIST n,	List program from line n to end.
ON	ON a EXEC n1,n2,...	Variation of ON...GOSUB for procedures. N1, n2 and so on are names of procedures to be

run.

	ON a GO# n1,n2,...	Similar to ON...GOTO except that line labels are used instead of line numbers.
POP	POP	This command now pops the runtime stack for all four types of loops.
PUT	PUT n	Same as "PRINT CHR$(n)";
RESTORE	RESTORE #name	Restores the data line indicated by the label name.
RND	RND	Parentheses are no longer needed at the end of this command, but it will still work if they

are there.

SOUND	SOUND	Turn off all sounds.
TRAP	TRAP #name	TRAPs to the line referenced by the label name.

HEX$	HEX$(n)	Convert n to hex string.
DEC	DEC(a$)	Convert hex string A$ to decimal.
DIV	n DIV i	Integer quotient of n/i.
MOD	n MOD i	Integer remainder of n/i.
FRAC	FRAC(a)	Fractional part of a.
TRUNC	TRUNC(a)	Truncates fractional part of a.
RAND	RAND(n)	Generates random number 0-n.
$	$nnnn	Allows input of hexidecimal numbers, but they are converted to decimal.

TURBO BASIC FUNCTIONS:

Arithmetic/Logic

$ $nnnn — Allows input of hexidecimal numbers, but they are converted to decimal. Ex: "FOR I=$0600 to $067F" => "FOR I=1536 to 1663".

&	n & i	8-bit boolean AND.
!	n ! i	8-bit boolean OR.
EXOR	n EXOR i	8-bit Exclusive-OR.

Memory

DPEEK	DPEEK(a)	Double-PEEK of a,a+1.
TIME	TIME	Time of day(numeric).
TIME$	TIME$	Time of day string, HHMMSS. Unfortunately, the time commands don't work properly because

they were written for European Ataris which operate at 50 Hz, instead of 60 Hz like American ones, the net result being that they gain 12 minutes each hour.

| INKEY$ | INKEY$ | Returns last character typed. |
| INSTR | INSTR(x$,a$) | Returns relative location of start of string A$ within X$ (returns 0 if not found). The |

match must be exact; strings with the same letters but differences in case or type (normal or inverse) will not be found.

| | INSTR(x$,a$,i) | i specifies the starting point of the search. |
| UINSTR | UINSTR(x$,a$) | Same as INSTR, does not distinguish between case or inverse characters. Ex: |

UINSTR("HeLlO","hello") returns 1.

	UINSTR(x$,a$,i)	Specifies optional starting point.
ERR	ERR	Value of last error number.
ERL	ERL	Line last error occurred at.

Constants

These commands are very difficult to understand due to translation difficulties and a photocopy that was chopped-off. As soon as we figure them out we'll let you know.
%0, %1, %2, %3, %PUT, %GET

NOTES:
1. Variable, Procedure and Label names may contain the underscore (_) character.
2. To print a double-quote (") in a text string, use two of them together, instead of the Atari BASIC method of using CHR$(34). Ex: "TEST";CHR$(34);"TEXT" becomes "TEST""TEXT" in Turbo-BASIC, both of which produce the output TEST"TEXT.
3. Turbo-BASIC also prints out English descriptions of all errors, including several new ones for errors involving the new commands:
Error - 22 ?NEST = Loops not properly nested.
Error - 23 ?WHILE = WEND with no corresponding WHILE.
Error - 24 ?REPEAT = UNTIL with no corresponding REPEAT.
Error - 25 ?DO = LOOP with no corresponding DO.
Error - 26 ?EXIT = EXIT is outside a loop.
Error - 27 ?XPROC = Error executing PROC.
Error - 28 ?EXEC = ENDPROC with no corresponding EXEC.
Error - 29 ?PROC = Procedure does not exist.
Error - 30 ?# = Label does not exist.
Also, Error 15 has been expanded to include an UNTIL which relates to a REPEAT which has been deleted.
4. The only commands which haven't been successfully translated are *F, *B, and the constants. Also, I intend to write a patch which will convert the time functions to 60ths of a second so they operate properly. Please notify us of any new discoveries or errors.

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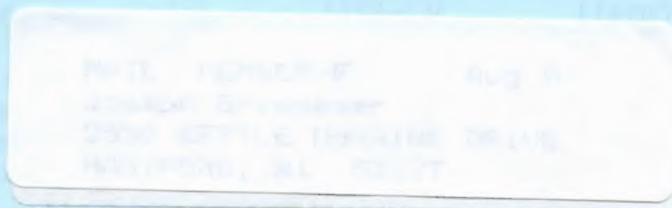Current paid members of MILATARI may place classified ads in the newsletter at no charge.

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